16633 SE 17th Street
Bellevue, WA 98008

ASCE, Seattle Section Expert Team

May 26, 2004

Allison Ray
Alaskan Way Viaduct and Seawall Replacement Project
999 Third Ave., Suite 2424
Seattle, WA 98104

Dear Ms. Ray:

The ASCE, Seattle Section Expert Team, which has been providing reviews of this project, is submitting comments to the Project Draft Environmental Impact Statement. Our efforts have been primarily in the technical area and our comments are mainly in this area. However, there are some questions about the project that are both technical and of public interest that we are addressing.

General

1. There is a compelling need for this project and it must continue with development even without firm funding for the entire project.

2. The issue of public safely is paramount and both the time to initiation of construction and completing the project is vital to the public welfare.

3. A basic guide in the selection of the recommended alternative is that the facility must retain the traffic carrying capacity through this corridor. With funding in question, staged development becomes a more important consideration.

4. Disruption to the activities along the waterfront and traffic using the corridor is a critical issue that will demand that innovative design and contracting procedures be used to minimize the traffic service and economic impacts of this area. For example, off-site manufacture of repetitive structural elements.

5. The consequences of having the viaduct collapse are so profound that everything possible to prevent this from happening is mandatory.

6. We believe that the recent public statements about the corridor being able to serve traffic demand without the viaduct and an expanded transit system is not valid. It is important to answer this comment specifically.

7. The Surface Alternative is not a valid option to serve the travel demand in this corridor.

8. It should be emphasized that tunnel construction is inherently more risky than aerial work and should be reflected in the cost estimates.

System

1. Cost continues to be a major issue. It seems evident that the City of Seattle and the Port receive the greatest benefit, if added capacity is obtained, as the project does little to help regional travel problems. The selected alternative should be the lowest cost alternative that has the greatest benefit to local and regional traffic.

2. It very interesting that only the Surface Alternative has a negative effect on I-5 and only by an increase in the future ADT of 22,000. Travel time increases may be used as a major argument, but if they are "Seattle trips" only, it is not a major regional issue. The lower cost alternatives that give the best reasonable benefits should have the highest consideration as they preserve funding for the many needed regional projects.

3. There will be strong local support to rid Seattle of the double deck viaduct and there is merit from a regional tourist perspective to improve the view from the city and enhance the waterfront experience, but are the increased costs justified? The Surface Alternative accomplishes the aesthetic goals, has a short construction period and is lowest cost, but does not have adequate capacity. While the Tunnel may have the greatest advantages, the cost is $1.3 Billion more that the Surface Alternative. The Bypass Tunnel has reasonable staging potential and maintains capacity, with an added cost over the Surface Alternative of $600 Million.

4. Is it possible to stage construct the Bypass Tunnel such that the West wall (sea wall) could be constructed in such a way that the tunnel could be added in the future? This would get a temporary "Surface Alternative" open to traffic early at a lower cost and allow the Bypass Tunnel to be built when funding becomes available.

5. The capacities of Highway 99 north and south of the project are a concern. Are we building a facility that has greater capacity than is needed?

Traffic

1. The detailed analysis in the Transportation Appendix provides a great amount of information about individual parts of the Seattle Transportation System, but the analysis does not provide a comprehensive look at the total system effects of each alternative. The information in the analysis gives the travel times from point A to B, as an example, but it does not give the a comparison of the total system travel. This total system information should be available with the traffic models being used. Information would be available for total system delay, vehicle-miles and vehicle-hours of travel. This data would allow a better comparison of the alternatives from an operational perspective. Without this detail it is difficult to make a comparison of

alternatives. Therefore, it will be hard to convince the public on which alternative is the favored plan.

2. The elimination of the Seneca Street off-ramp and the Columbia Street on-ramp with the tunnel alternative will have a substantial impact on a large portion of the central downtown trips. There will be increased operating costs for these commuters and will put additional traffic on the surface street system causing increased congestion and delay for the trips that are already traveling these routes.

3. There are concerns about the reduction in capacity and consequent increase in travel times resulting from the surface alternative. The tradeoff between loss of capacity and gain in "view" from the waterfront area is a political question. It is likely; most of the users of the north-south corridors through downtown would prefer the capacity provided by the other alternatives.

4. What is the comparison between the alternatives related to the Port of Seattle access? Travel time from essential port facilities to I-5 and I-90 is very important in the competitive climate of West Coast ports.

Geotechnical Issues

1. Being a DEIS, there is a lack of detail regarding engineering issues. We continue to be concerned that Design Team is taking too conservative an approach to the earthquake-induced deformation response of the soils and the depth and lateral extent of soil improvement requirements. The final design should consider the risks of a less conservative approach.

2. We have a question regarding the impact of tunnel construction and soil stabilization on the buildings to the east. Most of these buildings are pile supported and not likely to experience displacement, but the integrity of the older pile foundations is questionable. For example, the piles supporting the Compass Center at Washington Street settled and detached themselves from the superstructure at some point in the past.

3. With the ground improvements behind the existing seawall (assumed to be jet grouting forming a soil plug), will the improved soil act as a barrier to ground water flow from upland? Are there contaminants in the ground water; and if so are there provisions for ground water collection, pumping, treatment, and disposal?

4. Will the jet-grouted soil be strong enough to replace the removed sheet pile wall between S. King Street and S. Washington Street and the removed upper portion of the gravity seawall between S. Washington Street and Madison Street? Will the improved soil fracture during an earthquake, thereby affecting the strength of the soil and the seawall?

5. Is the installation of sloping riprap being considered for other than just the S Washington Street to Madison Street section? The sloped riprap is desirable and adds a fish friendly habitat.

Utilities

1. There are two stormwater alternatives provided. The "BMP" alternative would require that the project meet current stormwater regulations, providing treatment and detention BMP's to achieve reduction in discharge of essential pollutants. The "Convey and Treat" alternative takes the stormwater and adds it to the combined sewer system for conveyance and treatment at West Point. This latter alternative goes against King County's policies.

2. The existing combined sewer facilities are already full during most storm events, so the stormwater will receive the minimal treatment (screening and disinfection) at the Denny Way facility, and be discharged to Elliott Bay. This solution would seem to add to an existing CSO problem within the City, when for minimal cost, the project could follow the current requirements and discharge treated stormwater to Elliott Bay.

We would like to reiterate that this project is vital to protect public safety, provide for the traffic demand in the corridor, and must be accomplished with minimum disruption to traffic flow and business activities. Funding must not be an excuse for delaying development. The effects of the viaduct collapsing are so profound that every effort must be made to prevent a catastrophic failure.

It is recognized the many of these comments may have been evaluated in your analysis. However, we feel that they should be fully addressed to satisfy the public record in your decision process in selecting a preferred alternative.

Our team appreciated the opportunity to provide our input into the project and hope that our work has been of assistance to the design team. Your assistance and courtesies were very helpful in our efforts.

Sincerely,

Theodore T. Bell, PE
Chair, Expert Team